

The Desert Eagles Are Taking Off!

Dick Metcalf reports that this big and brawny semiauto pistol, chambered in .357 Magnum and .44 Magnum, is big on performance.

LAST AUGUST, I stood behind the firing line at The Masters International Shooting Championship "High Sixteen" shootoff and watched competitor Allen Fulford of Georgia do something remarkable.

In a man-on-man "sudden death" duel with former national action pistol champion Brian Enos, Fulford knocked down a dozen 12-inch-diameter steel plates at 100 meters—from a standing position. To top-level metallic silhouette shooters, this probably doesn't seem remarkable. But Fulford, who had won The Masters' .22 LR Precision Event, is a *bullseye* shooter, not a metallic silhouette shooter. And he lost the duel because he exceeded the 10-second time limit. What was remarkable is that he was shooting a borrowed .357 Magnum, a handgun he had never before used in competition. What is even more remarkable is that the gun was a 14-inch Desert Eagle gas-operated *autoloader* manufactured by Israel Military Industries (IMI), marketed in the U.S. by Magnum Research Inc. (MRI) of Minneapolis, Minnesota.

BY DICK METCALF

That's right, an autoloader. A .357 Magnum autoloader with a 14-inch barrel. At 100 meters. Offhand. From the way the crowd reacted to Fulford's performance, I'd say the gun and Fulford made a hell of a general impression. It certainly made an impression on me.

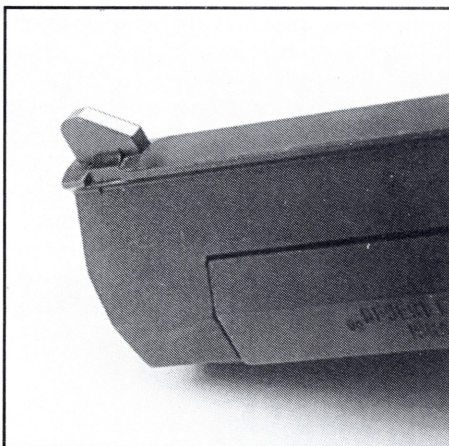
Ever since that day back in the 1930s when the first magnum revolver was introduced, auto pistol fans have had to struggle with an inferiority complex. Not only have revolvers as a class always been vastly more popular among American shooters in overall terms, but with the coming of high-intensity, long-range handgun cartridges like the .357, .41, and .44 revolver magnums, autoloaders had to take a far-to-the-rear seat in the power department as well. The situation was made even worse by the advent of heavy-powered single-shot pistols for metallic silhouette competition and handgun hunting—two sports in which centerfire autoloaders have been essentially nonexistent.

Long gone are the turn-of-the-century days when the "manstopping" Government Model 1911 .45 ACP was "King of the Handgun Hill."

It's quite understandable then that the auto pistol fraternity has impatiently awaited the development of effective and workable designs for "magnum-power" autoloaders which could stand equal to revolvers and single shots in the modern era of precision-accurate, long-range, high-power handgunning. Many designers and manufacturers have tried to provide them. Some of the more famous examples include: the recoil-operated rotary-bolt Auto Mag (.357 and .44 Magnum), the Wildey gas-operated auto (9mm Winchester Magnum and .45 Winchester Magnum), the Browning-form recoil-operated Grizzly Win. Mag. (.45 Winchester Magnum and other conventional auto cartridges), and the Model 1911-lookalike Coonan Arms .357 Magnum.

Although very interesting from a technical point of view, none of these autos have yet been wildly successful, and





High front target sight with orange ramp is available with optional sight system.



Standard rear sight is fixed low-profile combat type with Patridge sight image.



Millett fully adjustable target sight is available as option for semiauto pistol.

some never made it past the model-shop prototype stage. All have in one way or another failed to capture the interest of handgunners in the ever-changing consumer handgun market.

The reasons for such lack of success are varied. For one, autoloader manufacturers have discovered (as have magnum revolver makers) that 19th-century or early 20th-century mechanical designs can only be applied to modern high-pressure cartridges within very limited tolerance ranges. Even when "new" auto pistol cartridges (9mm Win. Mag., .45 Win. Mag., 10mm, .41 Action Express, .41 Avenger, .451 Detonics Magnum, etc.) have been designed, manufacturers have found it extremely difficult to attract interest to them and away from established revolver or single-shot loads of similar ballistic performance.

Most of the major established handgun manufacturers are firmly committed to existing traditional designs. Small firms that have attempted to develop new autoloader mechanisms have had great difficulty attracting the sizable and sustained capital investment necessary to

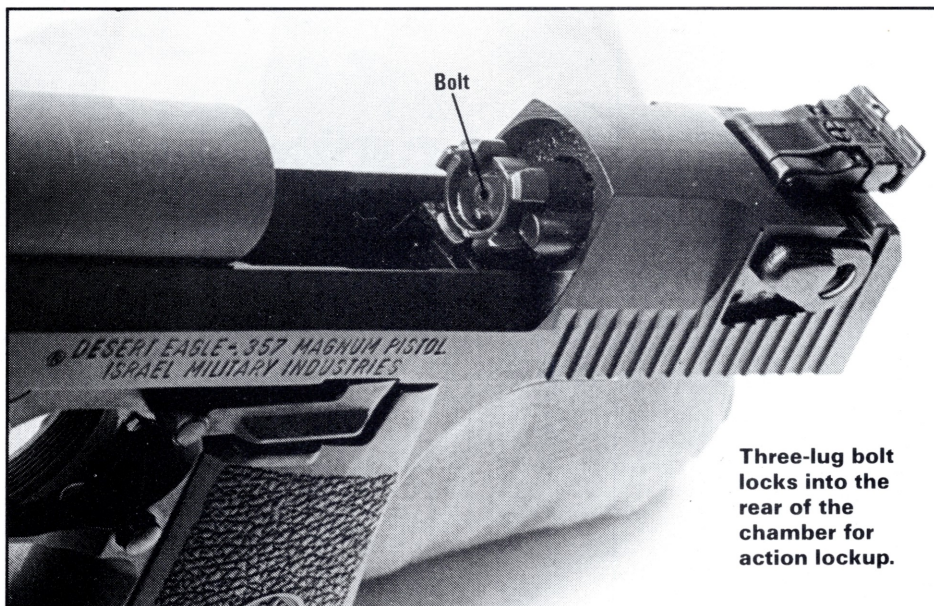
establish a market position from scratch in face of price discounting by the volume producers of conventional-form guns.

Also, it is simply more difficult, from an engineering point of view, to create a workable, reliable, and safe high-power autoloader mechanism than it is to make a high-power revolver or single shot—much less make it profitable to sell at a reasonably accessible price.



Barrel Lock Lever

Barrel lock lever is rotated to disconnect barrel and disassemble the pistol.



Three-lug bolt locks into the rear of the chamber for action lockup.

SPECIFICATIONS

IMI Desert Eagle .44 Magnum Semiauto Pistol

Manufacturer	Israel Military Industries
Model	MR 4401 Desert Eagle
Type	Autoloader
Operation	Gas operated
Caliber	.44 Magnum
Barrel length	.6 inches
Overall length	10.6 inches
Weight, empty	66.9 ounces
Safety	Ambidextrous manual firing pin lock/sear disengagement
Sights	Fixed-dovetail rear notch; ramp front blade
Sight radius	8.5 inches
Rifling	Six-rib polygonal, 1:18 RH twist
Stocks	Stippled black synthetic
Cartridge capacity	8-round magazine
Finish	Dull black
Variations	.357 Magnum version; 10- and 14-inch optional barrels; aluminum or stainless-steel frame options; various finishes
Distributor	Magnum Research Inc. 7271 Commerce Circle West Minneapolis, MN 55432
Price	\$699

The Desert Eagle seems to have bypassed all these obstacles. Its gas-operated mechanism is a war-proven design. It is manufactured by a major, internationally respected company. It utilizes readily available, popular, standard-form .357 Magnum or .44 Magnum ammunition. And it *works*—reliably, comfortably, and accurately. The coming of the Desert Eagle, which was introduced to the American market in 1984, coupled with Colt Firearms' recent introduction of the 10mm Delta Elite Government Model autoloader, may be a signal that the long-awaited day of the magnum autoloader has finally arrived.

As befits a "magnum" handgun, the Desert Eagle is big. With a standard six-inch barrel, the all-steel .44 Magnum version weighs 66.9 ounces; the parallel .357 Magnum version weighs 62.4 ounces. (By comparison, a Colt Government Model .45 ACP weighs 38 ounces, and a 10½-inch Ruger Super Blackhawk .44 Magnum revolver weighs only 51 ounces.) The pebbled plastic grips enclose a huge grip frame. Trigger reach is 2.75 inches (conventional), but the fingers of my average-size hand will barely curl around the seven-inch-diameter butt necessary because of the magazine depth required for .357 Magnum and .44 Magnum cartridges. This is definitely a two-handed gun—unless your hands are at least as big as Arnold Schwarzenegger's (who used a Desert Eagle .357 in the movie *Commando*).

The gas-operated mechanism may be unconventional in a handgun but is little different in reality from the gas-operation mechanisms sport shooters regularly use in autoloading shotguns or centerfire rifles. More unusual, in fact, is the Desert Eagle's rotating bolt, which has much of the appearance and function of a military M-16 rifle bolt.

The operating principles are simple. In battery (at rest), the bolt is locked in place by three lugs in the barrel assembly. The spring-loaded extractor is really part of the bolt lugs (and the ejector is a spring-driven plunger in the boltface, similar to what is current in bolt-action rifles). When the cartridge is fired, propellant gases pass through a port in the bottom of the bore just slightly ahead of the forward edge of the cartridge case. This gas follows through a tube running under the length of the barrel and enters a piston chamber beneath the muzzle.

The impact of the expanding gas on the pistol drives the slide to the rear, unlocking and withdrawing the rotating bolt from the rear of the firing chamber. The slight delay afforded by this mechanism allows the necessary reduction in chamber pressure before the bolt unlocks, and the bullet is actually clear of the muzzle before the case extracts.

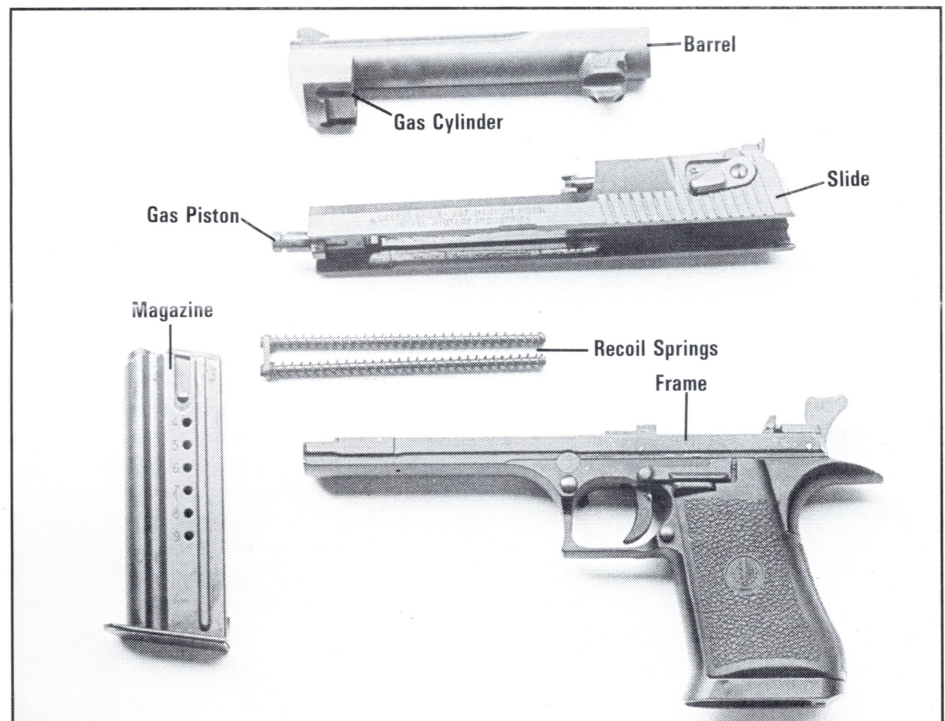
As the slide continues rearward, it functions conventionally—ejecting the fired case, pushing the hammer downward into the cocked position, and compressing the dual recoil springs. Once the slide has moved fully to the rear, the recoil springs expand, driving the slide and bolt forward. During this forward return, the bolt is prevented from rotating by a stabilizer pin, which thus assures reliable realignment of bolt to chamber. When the bolt reaches the rear face of the chamber, the stabilizer pin is compressed, freeing the bolt to cam into place, locking the cartridge firmly in the chamber.

Except for its size and the idiosyncracies of the gas-operated rotary bolt mechanism, the Desert Eagle functions as a conventional single-action autoloader, with conventional operating mechanisms located in conventional places. A slide catch actuated by the magazine follower locks the slide open when the last round in a magazine is fired. After charging with a fresh magazine, the slide is

ing the gun in one hand. (I always hold it in two hands anyway.) When the safety is engaged, it depresses the trigger bar away from the sear; the trigger can be pulled, but it is not engaged. The same depression of the trigger bar occurs during rearward movement of the slide so that the sear cannot be engaged when the bolt is not fully seated and locked into the chamber. Engaging the safety also locks the inertial spring-loaded firing pin so that a blow on the hammer (or dropping the gun on its muzzle) cannot cause an accidental ignition. As conventional SA auto pistol mechanisms go, this one is particularly simple and foolproof.

The Desert Eagle magazine release functions with a conventional drop button located on the left side of the grip frame at the rear of the trigger guard. Magazine capacity in the .357 Magnum version is nine rounds (eight rounds for the .44 Magnum).

Construction of the Desert Eagle pistols is streamlined and utilizes considerably fewer parts than other auto-



Disassembly to this point is simple and allows shooter easy access for cleaning.

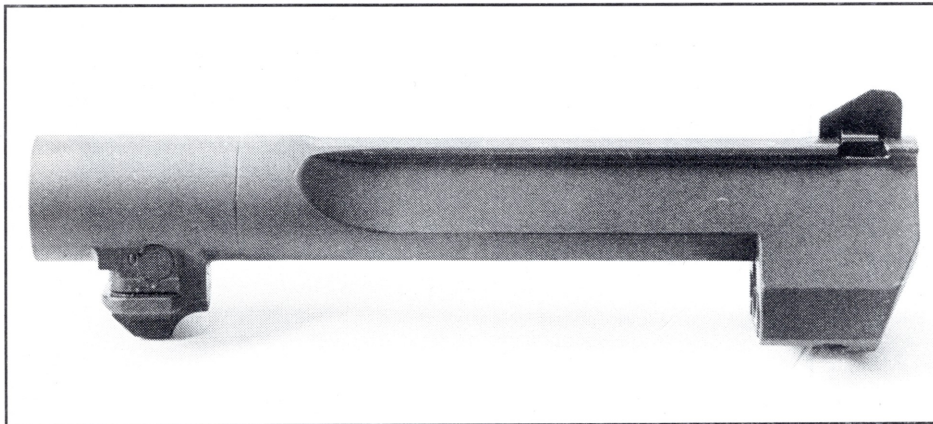
released either by pressing down on the catch (located above the grip panel on the left side of the frame) or by pulling the slide slightly to the rear and releasing it.

Due to the power contained in the dual recoil springs, I found that it takes considerable pressure from both my thumbs working together to depress the slide catch; most users will quickly get in the habit of pulling the slide to the rear to release it.

The Desert Eagles feature an ambidextrous manual safety that's slide-mounted just below the rear sight. Again, due to the size of the grip, I found a shift of grasp necessary to work the safety when hold-

loaders. Modular construction is used throughout, and disassembly for field maintenance is simpler than for any other handgun design I have ever encountered.

To disassemble, first remove the magazine and manually check to make sure the chamber is empty and clear of a cartridge. Engage the safety and pull the hammer slightly back until it clicks into the semicocked position. Compress the barrel lock pin (button) on the left side of the frame above the trigger guard while rotating downward the barrel lock on the opposite side. When the barrel lock clicks into place, the barrel will simply slip off



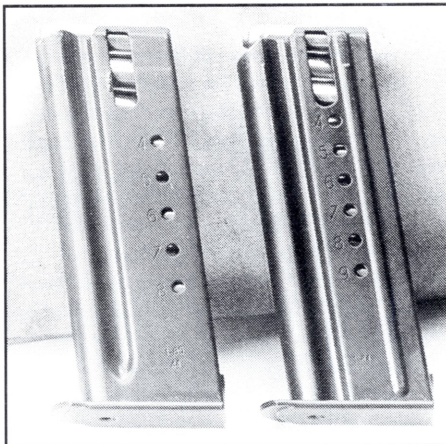
Desert Eagle's heavy barrel sports integral solid barrel rib and gas cylinder

and up into your hand. Then pull the slide forward from the frame and lift out the recoil spring assembly. That's all there is to it. Reassembly from the field-stripped state is equally simple. If you need further disassembly of magazine, slide, bolt, trigger assembly, or hammer/sear mechanism, the Desert Eagle's instruction manual provides full and illustrated directions that are far superior to the average instruction manual.

Magnum Research provides a wide range of options, finishes, and accessories for the Desert Eagle pistols. The .357 Magnum version is available with a blued-steel frame, a stainless-steel frame, or a 7075-T6 aircraft-alloy aluminum lightweight frame. The .44 Magnum version is currently available in blued steel only. The standard finish is dull black oxide, which has the appearance of a dull-black Parkerized surface. Satin nickel, bright nickel, and bright-polish blue finishes are available for both .357 and .44 Magnum steel-framed versions as "MRI Custom Shop" options.

Both chamberings are cataloged with standard six-inch barrels and optional accessory 10- and 14-inch barrels. All barrels are top grooved to standard dovetail dimensions for scope mount bases. A heavy-duty scope mount that will accept standard Weaver-type rings is available as an accessory (\$37.95). Standard sights are fixed-dovetail combat type, but guns equipped with high-visibility Millett precision-adjustable sights are available from MRI on special order. The company also markets a full line of logo-embossed famous-brand holsters, belts, carrying cases, presentation cases, cleaning accessories and tools, and accessory pouches, as well as pins, hats, patches, etc.

The recommended retail price for a standard .357 Magnum is \$589; for a .44 Magnum, \$699. Optional 14-inch barrels list for \$289.96. If you have a .357 Magnum Desert Eagle and want to make it into a .44 Magnum, a conversion/inter-



Portholes in magazine in .44 (L) and .357 reveal number of rounds remaining. changeability kit will be available this summer for \$495. It consists of bolt, slide, barrel, magazine, and recoil springs assembly—all in a nylon belt pouch case.

So the Desert Eagle is a big, heavy, gas-operated auto pistol built to the scale of a magnum revolver. And it costs a lot. Is it worth it?

Well, I have to admit that until I watched Fulford put on his performance with a Desert Eagle at The Masters, I had not been very interested in the gun. Long-range shooting and handgun hunt-

ing are what interest me most. Conventional autoloaders generally don't fit well into those categories, and I have not been generally impressed with other efforts to develop magnum-power autoloaders. They seem to turn out to be monsters in size and midgets in performance.

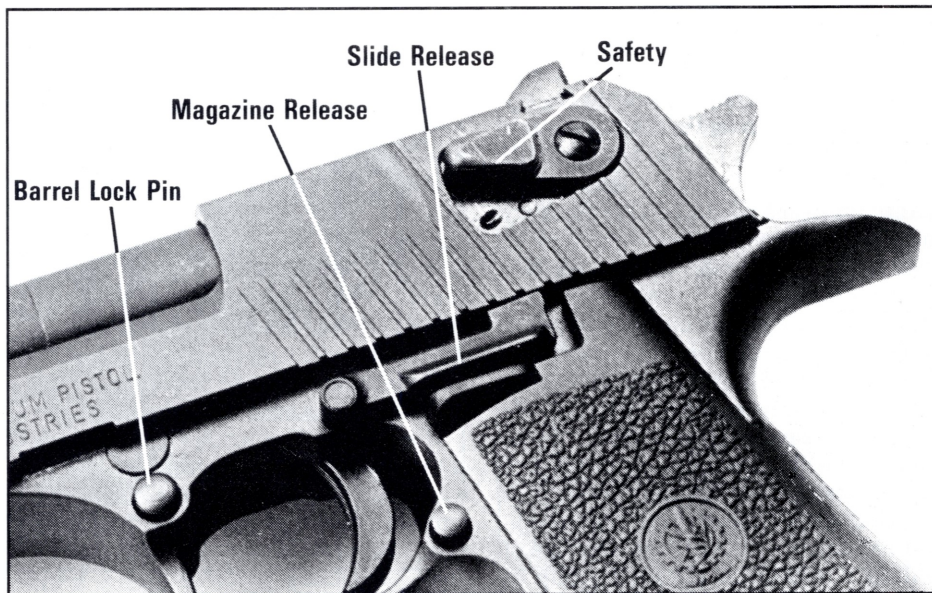
The Desert Eagle is something else. First, I'll look at subjective qualities.

After picking up a Desert Eagle, you instinctively expect it to be comfortable to shoot because of its weight—and it is. Just as with a gas-operated shotgun, the piston-impact operating mechanism seems to have a cushioning effect. The subjective experience is odd. You seem able to actually "feel" each separate stage of the operating process in your mind—unlocking the bolt, slide moving back, then springing forward to pick up and chamber a round—but it's still impossible to beat the action of the gun in firing, no matter how fast you try to "full auto" your trigger finger.

In terms of recoil, there is no question the .44 Magnum Desert Eagle is the most pleasant .44 Magnum handgun I have ever fired. It gives your hands a solid push but not a slap. The only thing that comes close is a Dan Wesson Model 44 VH with a 10-inch barrel.

Factory-grade trigger pull on the three review guns I received was not exactly match grade. There is about 1/8-inch slack, followed by another 1/8-inch creep, and about 1/16-inch overtravel after the sear breaks. The Desert Eagle has a long pull. Fulford says this is the reason he went past the 10-second time limit in The Masters shootoff. As a champion bullseye shooter, he's into precision trigger control and sight alignment; to precisely control that unfamiliar long trigger while maintaining sight alignment on a 100-meter target from the standing position simply took up more time than he had.

The lengths of pull on my review guns

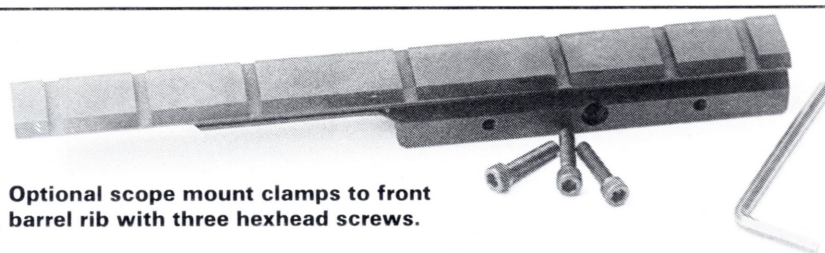


Layout of safety, magazine release, and slide release is conventional for autos.

were very smooth and reasonable in weight. The lightest (the .44) broke at 5.5 pounds; the average was 6.25. This is not excessive if you are thinking in terms of a service-grade auto for rugged field use and certainly reduces the likelihood of premature discharges. The difficulty is that the Desert Eagle by definition is intended for considerably more demanding precision and long-range tasks than the conventional service-grade autoloader. This calls for a precision trigger pull.

The trigger mechanism is not particularly complex and lends itself well to tuning and refinement by a qualified and competent gunsmith. Timney Mfg. Inc. (3106 West Thomas Rd., Suite 1104, Phoenix, AZ 85017) offers a Desert Eagle tuneup package that smooths pull and reduced creep and overtravel for about \$65. The point seems to be that you are just going to have to expect the trigger pulls that come from most factories these days are going to be "utility grade"; if you want better, you are going to have to have it done as an aftermarket custom job and assume the cost (and the liability) yourself.

Now to accuracy. MRI specifies in its catalog literature that the "maximum effective range" of the Desert Eagle in both calibers with the standard six-inch barrel is 200 meters. It's no accident that this is the ram distance in metallic sil-



Optional scope mount clamps to front barrel rib with three hexhead screws.

minutes of angle (MOA)—with sufficient energy to topple the 55-pound steel rams at that range (six inches represents one-half the diameter of the 12-inch deep chest zone of the ram target). To see if the Desert Eagles could meet the three MOA criteria, I equipped a 14-inch .357 Magnum version with a Burris 10X IER scope to work on some 200-meter groups. (The only way to see how well a gun can shoot, as opposed to how well a shooter can shoot, is to mount it with a high-magnification scope and shoot it at extended range from a solid benchrest.) I set up the .44 Magnum with a new Aimpoint 2000 for group checking at 50 meters. Longer barrels for the .44 were not available at that time, so I decided to check out the six-inch Aimpoint setup as a potential whitetail hunting tool.

I used Federal factory ammunition throughout: the heavy 180-grain JHP .357 Magnum loads and the 180-grain JHP, 220-grain MCP, and 240-grain

recommended pressure ranges, and all of them are functioning perfectly as well. The message seems to be that you should stay away from lead-bullet loads to keep from fouling the gas ports and tubes; beyond that, the standard industry-accepted recommendations for commercial and handloaded ammunition seem to apply.

In terms of specific results, I sighted-in both the .357 and .44 at their ranges and fired five five-shot record groups with each type of ammo. The overall average for the .44 Magnum at 50 meters was 1.38 inches. That comes out to about 2.75 MOA, which looks pretty impressive. Published reports on the .44 Desert Eagle by other authors claim .33-inch (two MOA) one-hole five-shot groups at 50 feet with factory metallic sights, so I guess I'm not too far off. The best individual load was the 220-grain MCP, which averaged 1.20.

The .357 was equally effective. At 200 meters, the Federal 180-grain JHP ammo averaged 5.65 inches, with only one of the five record groups exceeding six inches—and that was my fault. The Federal 180-grain JHP is a fine load. I've used it on whitetail deer, and it has sufficient energy and cohesion to reliably topple the steel ram targets with a well-placed hit. From the benchrest, I knocked down 10 rams by straight-hitting center above the midline with the scoped review gun.

Summary? A lot of autoloader fans have been waiting a long time for an accurate, long-range magnum auto pistol. The Desert Eagle is it. It is every bit as accurate, reliable, and ballistically effective as a single-shot pistol or premium revolver in the same chamberings.

I used the .44 Magnum Aimpoint-equipped gun during the 1986 whitetail season with Winchester's new 210-grain Silvertip hollowpoint and was very pleased with its field-handling qualities—as well as with the six-point buck it dropped. I expect to see a growing number of Desert Eagles listed in the match report pages of the IHMSA *Silhouette* newspaper, and I know for a fact that its magazine-fed capability is going to increase its use considerably in the Long-Range Event at The Masters.

I didn't expect to end up liking the Desert Eagle as much as I do. It's a big gun with a big price. But it delivers a big performance.



Interchangeable barrels and integral scope mount rails allow for greater versatility in Desert Eagle configurations.

houette. MRI also says that with the optional 14-inch barrels, the effective range of the Desert Eagles is 300 meters. MRI claims the Desert Eagle is a "silhouette-quality" gun, one with a level of accuracy and performance that can compete with single-shot, long-range pistols. Is that claim valid?

Allen Fulford put on a pretty convincing demonstration that it is, with \$5000 worth of match prizes riding on his shoulders. Shooting from a benchrest on the same range several months later, I was even further convinced.

To be competitive at the top level of metallic silhouette competition, a gun/load combination has to be capable of holding a maximum six-inch group at 200 meters—essentially equal to three

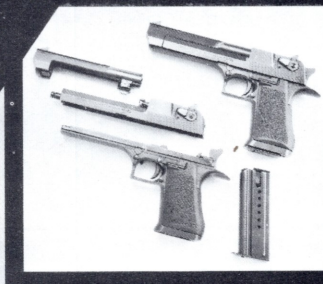
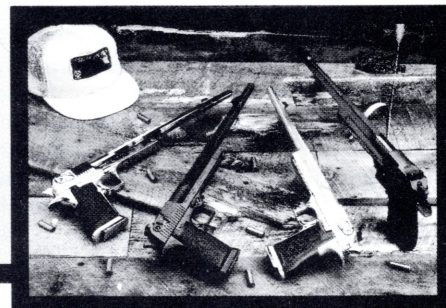
JHP. Incidentally, in the Desert Eagle "Operator's Manual," MRI specifies "the pistol is designed for .357 Magnum (158 grains)/.44 Magnum (240 grains) in accordance with industry standards (SAAMI STD); use of nonstandard or reloaded ammunition nullifies the warranty . . . Gaschecked or semijacketed bullets provide best function and reliability. Do not use unjacketed lead bullets. Full metal jackets will require more frequent cleaning because of the lead base."

Three of the four loads I used were not of the MRI-specified weights, but all were loaded to SAAMI-industry standards. All four functioned perfectly in the review guns. Several of my shooting buddies have developed jacketed-bullet handloads for Desert Eagles that are within

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